Livestock and Poultry Veterinary Care Services Series, Part I: What Kind of Vet Do I Need? How Do I Find One? Updated, September 2022



COOPERATIVE EXTENSION







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Livestock and Poultry Veterinary Care Services Series, Part I: What Kind of Vet Do I Need? How Do I Find One?

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Did you know epizootic disease outbreaks in domesticated livestock are just one reason why we have licensed veterinarians?

Centuries before the introduction of sheep, cattle, horses, swine, and fowl to North America, livestock herds in the European and Mediterranean Basin were plagued by outbreaks of highly contagious and **zoonotic** diseases (Tomley & Shirley, 2009). Infectious and non-infectious diseases have evolved with host animals over the course of more than one hundred centuries of domestication of draft, fiber, and food animals.

Recent archeological data from excavations at Tell es-Sultan (Nigro, 2014), the location of the biblical Jericho, and one of the longest occupied cities known on earth, shows animal pens within the city walls. Rabies, for example, has been described in the literature from different civilizations for more than three thousand years (Tarantola, 2017).

Livestock diseases can be bacterial, viral, fungal, parasitic, or of prion origin. The following list shows a few examples of pathogens accidentally imported to North America with animals or transported here by hitchhiking insects like mosquitoes, ticks, and flies, or introduced by migratory birds and animals, or other means.

Examples of recent animal disease outbreaks in the United States:

- Brucellosis (cattle, sheep, cervid, swine)
- Tuberculosis (cattle, cervid)
- Rabbit Hemorrhagic Disease Virus
- Virulent Newcastle disease (birds, poultry)
- · Classical swine fever
- New World screwworm (warm-blooded animals)

- Pathogenic Avian Influenzas
- Scrapie (sheep and goats)

Old-World Contagions

Diseases like anaplasmosis, brucellosis, and tuberculosis are bacterial in origin. Avian influenza and classical swine fever are highly virulent viral diseases that can also have lesser forms. Rabies is an example of diseases transferred by the bite of an infected animal to another animal or human, or through contact with saliva. Rabies can also be transmitted through direct contact with brain and nervous tissue. Babesiosis is a tickborne protozoal disease. Blue-tongue, eastern equine encephalitis, poxviruses (smallpox, cowpox, swinepox, sheeppox, goat pox), vesicular stomatitis, and West Nile virus are viral diseases transmitted by insects.

These exotic or foreign livestock pathogens can quickly become established within a new geographical region. They continue to present significant risks to livestock production in the United States. Many federal, state, and local emergency disaster plans for agriculture define foreign transmissible diseases as having the potential to significantly impact economic and/or animal health; or could restrict the intrastate, interstate, or international movement of livestock or animal parts.

New and Emerging Diseases

New diseases and emerging diseases are those that are known from other parts of the world but now appearing in other areas. Rinderpest, peste-des-petits ruminants, foot-and-mouth disease, African swine fever, lumpy skin disease, and Rift Valley fever are examples of diseases, like Covid-19, which have appeared in relatively recent times. Rinderpest is considered the first animal disease to be declared eradicated globally in 2011.

Transboundary 'foreign' animal diseases are of exotic origin, as they did not originate here in the United States. They are highly contagious and transmissible epidemic diseases of livestock and can rapidly spread to new areas and regions regardless of national borders and have serious socio-economic and public health consequences (Yadav et al., 2020).

To find out more about epizootic diseases of concern in cattle, equine, sheep, poultry, cervids, swine including pot-bellied pigs, atypically owned animals, and wildlife see:

- Livestock and Poultry Veterinary Care Services Series, Part Part II: Federal Resources
- Livestock and Poultry Veterinary Care Services Series, Part III: State Resources

What Exactly Is a Veterinarian?

The distinctive origin of this seven-syllable noun 'veh·tr·uh·neh·ree·uhn' is most likely (anonymous, 1939) a mashing together of 14th century Greek and Celtic verbs describing the drawing of blood (veheri) from any sick (terrin) animal working under the yoke (bestia veterinus). The evolution of specialized animal healthcare involving the diagnosis of bacterial and viral infections of animals is 6,000 years in the making. Migrating societies cared for their stock as one would an enginedriven machine. Situations arose where there was a need for a level of expertise beyond general maintenance. Some illnesses arise that are or can become highly contagious within a species of livestock, between livestock species, and even to humans.

In modern times, rapid response to epizootic disease can prevent a zoonotic outbreak from crossing over into humans. In addition to emergency care and routine animal husbandry procedures like castrations, vaccinations, and wound treatments, veterinarians are trained to identify zoonotic diseases from other infections and trained to contain these diseases. Livestock and poultry veterinarians are essential to slowing the spread and protecting other herds and flocks. This fact sheet will help you identify what kind of veterinarian you need, review some very important terminology related to farm animal health care, companion animals care, emergencies, or the event of a zoonotic outbreak situation. In the event of a national, regional, state,

or local emergency disaster declaration, knowing these terms will facilitate coordination and cooperation with emergency responders. To help you identify what kind of veterinarian you need, let us review some very important terminology related to farm animal health care and companion animals for general care, emergencies, or the event of a zoonotic outbreak situation. In the event of a national, regional, state, or local emergency disaster declaration, knowing this terminology will facilitate coordination and cooperation with emergency responders.

Important Terminology

Common small animal pets. Dogs, cats, guinea pigs, rabbits, and hamsters.

Exotic pets. Small mammals, birds, reptiles, amphibians, and fish (generally not native to North America).

Unusual companion animals. Pot-bellied pigs, miniature goats, and miniature horses.

Zoonotic. Zoonotic diseases are any disease or infection that is naturally transmissible from organisms like bacteria, viruses, prions, parasites, and fungi to other animals and to humans.

Epidemic. An increase, often sudden, in the number of cases of a disease above what is normally expected in that population in that area. Outbreak carries the same definition of epidemic but is often used for a more limited geographic area.

Epizootic. Denotes or relates to a disease that is temporarily prevalent and widespread in an animal population. Diseases may be highly contagious within just one group of animals or highly contagious among more than one group of animals.

What Classes of Animals Do Veterinarians Treat?

Vertebrate Animals

There are five taxonomic Classes of animals with a backbone in the sub-phylum *Vertebrata* in the phylum *Chordata*. *Amphibia* (amphibians), *Aves* (birds), *Fishes* (jawless fishes, cartilaginous fishes, bony fishes), *Mammalia* (mammals), and *Reptilia* (reptiles).

Invertebrate Animals

Veterinarians also care for multiple types of invertebrates, which are animals without a backbone such as honeybees, tarantulas, and mollusks such as mussels and clams; to name a few.

Just like in human medicine, a veterinarian is 'licensed' by the state to assure knowledge and compliance with state laws, assure that medical standards are followed, and protect consumers. Some veterinarians are also 'accredited' by the United States Department of Agriculture to do regulatory work. Some veterinarians choose to work in general practice while others provide specialized care for that animal's unique metabolic, digestive, skeletal, hormonal, sensory, and reproductive needs.

Veterinarians can perform surgical procedures and administer regulated prescription medications, and most importantly, assist in an emergency. You might need a fish veterinarian, a bird veterinarian, a mammal veterinarian, a reptile veterinarian, or a combination thereof.

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Mammals

There are nineteen taxonomic Orders of animals in the Class Mammal.

- 1. Hoofed animals (even number of toes)
- 2. Toe-footed meat eaters (paws)
- 3. Whales and porpoises
- 4. Bats
- 5. Flying lemurs
- 6. African rock hyrax
- 7. Toothless mammals
- 8. Insect eaters
- 9. Pikes, hares, and rabbits
- 10. Pouched animals
- 11. Egg-laying mammals (a.k.a., not birds. Birds are in the Order Aves)
- 12. Odd-toed hoofed animals
- 13. Pangolins
- 14. Seals and walruses
- 15. Primates
- 16. Elephants
- 17. Gnawing mammals
- 18. Sea cows
- 19. Aardvark

Did you know? Most pets, captive wildlife, and domesticated livestock in the United States are in the Orders: Eventoed hooved animals; single-toed hoofed animals; toe-footed meat eaters; insect eaters; pikes, hares, and rabbits; and gnawing animals.

Aves

There are twenty-three known Orders of birds in the Class, Aves. Only some of them are domesticated or consumed as meat animals in the United States:

- 1. Order Galliformes: Three of five families:
 - a. Phasianidae: Chicken, quail, partridges, pheasants, turkeys, peafowl, and grouse
 - b. Odontophoridae: New World quails
 - c. Numididae: Guineafowl
- 2. Order Struthioniformes: Family ratites: Ostrich, emu, and Rhea
- 3. Order Columbiformes: Family Columbidae: Doves and pigeons

- 4. Order Psittaciformes: Large parrots
 - a. Mid-sized like black-legged and black-headed parrots
 - b. Smaller birds, like Budgies, cockatiels, lovebirds, and parrotlets
- 5. Order Anseriformes: Waterfowl family

Did you know? Domesticated and captive birds are found in all five Orders of Aves.

Ruminant

Ruminant animals are polygastric herbivores. Their stomach is divided into compartments. Some compartments have microorganisms that ferment plant cellulose. Many chew cud (regurgitated vegetation) to make it easier to digest. Cows, sheep, goats, bison, water buffalo, yaks, and deer are ruminant animals. Camels, alpacas, llamas are **pseudo-ruminants**, similar to ruminants but without a true rumen. However, they still need to consume a lot of roughage in their diet.

Monogastric

Monogastric animals, like humans, have only a single-chambered stomach. Horses, swine, poultry, rabbits, gerbils, and hamsters are examples of monogastric animals.

Licensing and Accreditation

Doctor of Veterinary Medicine Degree

There are now 33 United States accredited veterinary programs, five in Canada, and 16 accredited international programs. In the United States, the American Veterinary Medical Association's (AVMA) Council on Education awards the doctor of veterinarian medicine degree - (AVMA, January 1, 2022).

Licensing of Veterinarians

The North American Veterinary Licensing Examination (NAVLE), is the organization that administers the test that students must pass to practice in the United States.

Federal Category I Animal Accreditation

Veterinarians can be accredited by the United States Department of Agriculture to work in a regulatory capacity to properly identify, diagnose, and treat diseases that can transmit zoonotic diseases to livestock and complete regulatory documents. Category I animal accreditation are all animals but those listed in category II below, such as dog, cat, laboratory animal (rat, mouse, gerbil, guinea pig, hamster), non-human primate, rabbit, ferret, mink, gopher, hedgehog, native non-ruminant wildlife, and marine mammal.

Federal Category II Animal Accreditation

Veterinarians accredited in this regulatory category can work on all animals. That means they can work with common livestock and less common, like camels and bison on farms, to captive deer, to zoo animals. They work with domesticated poultry and exotic birds, even turtles, honey bees, and aquatic animals.

Practicing Licensed Veterinarian

A practicing veterinarian provides classic, standard sick, and preventative care. There are more than 3,353 practicing licensed veterinarians in New Jersey. Most are small animal practitioners (dogs and cats) or mixed practices seeing small ruminants and uncommon companion exotics. More than seventy practices specialize in equine care. Less than fifty practices specialize in food and fiber animal care (Strilec, 2021).

A livestock or poultry owner should have a relationship with a practicing licensed veterinarian to help with daily routine and disease issues that come up in the flock or herd. Over the counter sales of antibiotics are no longer allowed under a 2017 U.S. Food and Drug Administration (FDA) ruling. The guidance was finalized in June 2021 and will take effect in June 2023 nationwide. Federal requirements for the veterinarian-client-patient relationship (PDF) (https://www.avma.org/sites/default/files/2022-06/Federal-VCPR.pdf) require clients to 'establish' a relationship with a licensed veterinarian to receive antibiotics. "Establishing the federal VCPR requires a physical examination of the animal or timely and medically appropriate visits to the premises where animals are kept."

Veterinary Services

USDA Animal Plant Health Inspection Services (APHIS) Veterinary Services

APHIS Veterinary Services (VS) is organized into the VS Deputy Administrator's Office (VSDA) and has strategically focused business units: Field Operations, Strategy and Policy, and Diagnostics and Biologics. APHIS works in a variety of ways to protect and improve the health, quality, and marketability of our nation's animals (including various wildlife), animal products, and veterinary biologics. This subject area describes many of the diseases facing animals today and the steps APHIS is taking to prevent, control, and eliminate those conditions.

State Veterinarian

The State Veterinarian is the Director of the Division of Animal Health within the Department of Agriculture. This individual oversees the entire Division of Animal Health programs and supervises staff within the division. The division works to maintain the state's livestock disease control and eradication programs, importation, and traceability of imported livestock and poultry. It also works on animal emergency preparedness and runs the State Diagnostic Laboratory (AHDL (https://jerseyvetlab.nj.gov/). The State Veterinarian is a member of the Board of Veterinary Medical Examiners, is a member of the United States Animal Health Association (https://www.usaha.org/) (USAHA) Board of Directors and represents the state at the national level. Ultimately, the division has oversight regarding reportable, highly communicable, and foreign animal reportable diseases. The State Veterinarian would orchestrate a disease outbreak response leveraging available resources through the federal government and industry.

As an owner of an animal that can acquire and spread diseases, it is your responsibility to know and report the occurrence of diseases to the state veterinarian as required by law (N.J.A.C. 2:2-1.5 [PDF] (https://www.nj.gov/agriculture/divisions/ah/pdf/reportablediseaselist.pdf)). The list of reportable diseases to the Department of Agriculture and the Department of Health can be found on the department's respective websites. For more state specific information, see FS1336, Livestock and Poultry Veterinary Care Services Series, Part III: State Resources.

State Board Exams

The New Jersey State Board of Veterinary Medical Examiners, established on March 17, 1902, conducts exams as well as licenses and regulates veterinarians to practice in the state of New Jersey.

Learn more about federal and state regulations related to cervids, swine, including pot-bellied pigs, atypically owned animals, and wildlife, see the two fact sheets:

- Livestock and Poultry Veterinary Care Services Series, Part Part II: Federal Resources
- Livestock and Poultry Veterinary Care Services Series, Part III: State Resources

Where Do I Find A Practicing Licensed Veterinarian?

At the request of the NJAES Board of Managers, Rutgers Cooperative Extension has created this guidance directory of veterinarians that provide care for food and fiber animals. These tables will be updated as needed in accordance with the state board of veterinary medical examiners review of veterinary certification status in New Jersey. Please note that these tables are not conclusive of the availability of services in the event of an emergency and does not include equine practices in the state unless livestock care is provided. Please note the column office vs. farm calls. Some veterinarians are mobile at-farm only, while others are by appointment only in the office, clinic, or emergency animal hospital equipped with livestock handling facilities. Area codes listed are for generalization purposes only.

Important Information

There is currently a shortage of practicing livestock and poultry veterinarians in New Jersey. With an estimated state inventory (Eklund, 2017) of 25,000 head of cattle and calves; 17,791 sheep and lambs; 7,500 swine; 1.6 million laying hens; 25,000 broilers; 15,000 turkeys; 16,000 chukars; 29,000 Hungarian partridge; 10,500 pheasants; and 18,000 quail, there is a need to recruit food and fiber veterinarians.

Table 1: Food and fiber veterinarians practicing in South and Central Jersey (609, 640, 856 area codes).

Practitioner	Office Farm	Cattle	Sheep	Goats	Camelids	Swine	Poultry	Exotics		
SALEM, CUMBERLAND, GLOUCESTER										
Ernie Beier, Vet Services	Both	✓	✓	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		
Jon Higgins, Acorn Farmvets	Farm	✓	✓	✓	\checkmark	✓	no	✓		
Richard Decktor, Veterinary Hospital	Both	✓	✓	√	\checkmark	✓	√	no		
Robert Stephens	Office	no	\checkmark	\checkmark	no	\checkmark	\checkmark	\checkmark		
Ruthie Lindberg, Pinewood Equine	Both	no	✓	✓	✓	no	no	no		
			BURLIN	GTON						
Jon Higgins, Acorn Farmvets	Farm	✓	✓	√	✓	✓	no	√		
Ranacocas Vets	Office	✓	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		
Peticote Vet Clinic	Office	✓	\checkmark	\checkmark	no	\checkmark	no	no		
Pinewood Equine	Both	no	\checkmark	\checkmark	\checkmark	no	no	no		
House Paws Mobile Vet	Farm	no	\checkmark	✓	no	\checkmark	\checkmark	\checkmark		
CAPE MAY, ATLANTIC										
Jon Higgins, Acorn Farmvets	Farm	✓	✓	✓	✓	✓	no	✓		
OCEAN										
Barnagat Animal Clinic	Office	no	no	no	no	no	✓	\checkmark		

Mention of a veterinarian does not constitute an endorsement by Rutgers Cooperative Extension and does not imply approval to the exclusion of other suitable veterinarians.

Table: 2 Food and Fiber veterinarians practicing in Central New Jersey (732, 848, area codes).

Practitioner	Office Farm	Cattle	Sheep	Goats	Camelids	Swine	Poultry	Exotics	
CENTRAL NJ									
Elite Equine	Both	✓	\checkmark	\checkmark	\checkmark	\checkmark	no	✓	
Jon Higgins, Acorn Farmvets	Farm	✓	✓	✓	✓	✓	no	✓	
Jennifer Fanders, Edinburg Animal Hospital	Office	no	✓	✓	✓	no	✓	✓	
Chad Tindall, Mobile Veterinary Services	Farm	✓	✓	✓	✓	✓	no	✓	
NorthStar Vet, Robbinsville Clinic	Office	no	no	no	no	no	✓	✓	
Whiting Vet Clinic	Office	no	\checkmark	\checkmark	no	no	no	no	
Jackson Vet Hospital	Farm	no	\checkmark	\checkmark	no	no	no	no	
Advanced Veterinary Care Hospital	Office	no	✓	✓	no	no	no	no	
Phoenix Equine	Farm	no	\checkmark	\checkmark	\checkmark	no	\checkmark	no	
Raintree Veterinary Hospital	Office	no	no	no	no	no	✓	no	

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Table 3: Food and fiber veterinarians practicing in northern New Jersey (908, 973, 201 area codes).

Practitioner	Office Farm	Cattle	Sheep	Goats	Camelids	Swine	Poultry	Exotics	
NORTHERN NJ									
Coastal Elite	Farm	✓	\checkmark	✓	\checkmark	✓	no	✓	
Jon Higgins, Acorn Farmvets	Farm	✓	✓	✓	✓	✓	no	✓	
Chad Tindall, Mobile Veterinary Services	Both	✓	✓	✓	✓	✓	no	✓	
Christina Wilson, EquiHeart Veterinary Services	Farm	no	✓	✓	√	no	no	✓	
Basking Ridge Vet Clinic	Both	no	\checkmark	✓	\checkmark	\checkmark	no	no	
Valley Brook Vet Services	Farm	✓	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
Califon Vets	Farm	no	\checkmark	\checkmark	\checkmark	no	no	no	
Sussex Vet Hospital	Both	✓	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
Alger Vet Services	Farm	no	no	no	\checkmark	no	no	no	
Spring Mills Vet Clinic	Office	no	\checkmark	\checkmark	no	no	\checkmark	\checkmark	
Morris Plains Vet Clinic	Office	no	no	no	no	no	\checkmark	no	

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Table 4: Food and fiber veterinarians in neighboring states (emergency hospitals) by appointment.

Practitioner	Office Farm	Cattle	Sheep	Goats	Camelids	Swine	Poultry	Exotics
	OUT OF S	TATE EMI	ERGENCY	CLINICS	AND HOSPI	TALS		
New Bolton Center, PA	Office	√	✓	\checkmark	\checkmark	\checkmark	no	✓
Cornell University, NY	Office	✓	\checkmark	\checkmark	\checkmark	\checkmark	no	\checkmark
Chestertown Animal Hospital, MD	Office	✓	✓	✓	✓	✓	no	√
Brenford Animal Hospital, DE	Office	✓	✓	✓	✓	✓	no	√

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- 1. Have you created a client-patient relationship with a veterinarian? Before an emergency arises.
- 2. Do you have the appropriate veterinary handling facilities (head gate, catch chute, crate) in order for them to be safely seen by a veterinarian, and to keep the veterinarian safe?
- 3. Will you catch your animals and confine them before you call your veterinarian?
- 4. Have you had your veterinarian out to the farm for at least one visit before an emergency?
- 5. Do you have the ability to haul your animal safely to an emergency clinic?
- 6. In the event you notice a reportable disease, have you contacted the state veterinary office?

To find out more about veterinary care services see:

- Livestock and Poultry Veterinary Care Services Series, Part Part II: Federal Resources
- Livestock and Poultry Veterinary Care Services Series, Part III: State Resources

Resources

Rutgers NJAES Fact Sheets

- Livestock and Poultry Veterinary Care Services Series, Part II: Federal Resources. (FS1335)
- Livestock and Poultry Veterinary Care Services Series, Part III: State Resources. (FS1336)

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